

POLAR INFORMATION: THE WORK OF THE SCOTT POLAR RESEARCH INSTITUTE LIBRARY IN CAMBRIDGE

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ABSTRACT: This is an account of the work of the Scott Polar Library. It is introduced by some thoughts about information, and describes the various databases available to researchers with interests in the Antarctic and sub-Antarctic regions and the Southern Ocean, with comments on the process of bibliography.

KEYWORDS: Antarctica; Southern Ocean; sub-Antarctic; Bibliographies; libraries - Scott Polar Research Institute

Introduction

The collection of information goes through many stages, the first of which is when a research project is in the planning stage. Preparatory workshops and programme announcements form part of the unofficially published and circulated literature that has not been subject to peer review, which is often referred to as the *grey* literature. This literature may be difficult to obtain outside the circle of programme participants, but it is important to know what research is being planned in order to avoid duplication of effort, especially in Antarctica where the underlying cost of research is very high.

The second stage of information collection is when research has been conducted and data collected, but conclusions have not been reached. Preliminary results are published in internal departmental reports or as collections of presentations at locally organised workshops. These are also considered as part of the *grey* literature. Although researchers may not have reached their conclusions, such publications contain much useful information and data.

The most important stage of information is when it appears in the peer-reviewed journals, and the results, discussions and conclusions are fully in the public domain. The core role of libraries and other information services is to gather these publications and disseminate them to potential users.

The fourth stage of information could be described as semi-dormant. Research has developed further and interest has perhaps shifted to other fields. However, though the journals and conference proceedings seem to sit on library shelves and gather dust rather than readers, it would be a mistake to assume that their useful life is over.

Eventually information becomes historic, but not only in the sense that it may be of interest to historians. It may also become surprisingly relevant to new research. Examples of this include the use of whaling data from the 1930s to 1970s as a possible proxy to determine changes in the extent of Antarctic sea ice during a period when data from satellite remote sensing was not available; and the use of weather reports in ships' log books from the 16th century to provide data for the study of climate phenomena. The people who originally collected this information could not have been aware of the uses it would be put to many years later.

The history of the Scott Polar Research Institute Library

The death of Robert Falcon Scott and his four companions as they returned from the South Pole in 1912 plunged much of the English-speaking world into mourning. It was considered a national tragedy, and a memorial fund was established to provide for the families of those who had died. The residue was put towards the founding of the Scott Polar Research Institute which, after rather informal beginnings in 1920, was formally inaugurated in 1926 with a mission to provide a place where polar travellers and explorers, Arctic and Antarctic, could meet, and where material of polar interest might be collected and made accessible for future research.

The Scott Polar Research Institute has since developed extensive research and teaching programmes in addition to its original function of information gathering. The Institute offers a one-year postgraduate course leading to the degree of M.Phil. in Polar Studies, and there are always several Ph.D. students working alongside the various research programmes. These research programmes cover both the physical and social sciences, and some examples of the Institute's research in Antarctica are the 1970s air survey, which paved the way for the discovery of sub-glacial Lake Vostok; and research in the 1990s which examined the impacts of tourism on wildlife. Current projects include the study of glaciomarine environments; and glaciology and climate change with particular reference to the ocean melting of the Larsen ice shelf and the rapid retreat of ice in Western Antarctica.

Though the Institute is now respected for its research, it has never lost sight of its original purpose, and information gathering remains central to its work. The Library plays a key role in the life of the Institute and provides resources to researchers from all over the world.

The long history of the Scott Polar Research Institute has served to increase significantly the information resources available. In addition to its unrivalled collection of rare and historic polar literature, the Library has been collecting both Arctic and Antarctic material since the early 1920s, with the result that publications which represented the cutting edge of polar research when acquired have now become part of the historic record. We also take a long-term and broad view of gathering and disseminating information, with an active acquisitions policy that covers all languages, all sciences including the social sciences, and many subject areas such as polar fiction, children's books, and art, which lie outside the normal scope of other academic libraries. We have had a computerised library catalogue since 1985, much of which is searchable online. We also have a polar museum, and an extensive archive of polar manuscripts which can now be searched online as part of the Archives Hub project.

The original purpose of the Institute, to provide a place to meet and find information about the Polar Regions, can now to a great extent be fulfilled world-wide via the Internet.

The Scott Polar Research Institute Library at the beginning of the 21st century

The periodicals section of the library contains over 700 current journals, and the main library holds over 140,000 volumes covering the north and south polar regions. The computerised section of the catalogue includes around 44,000 records for Antarctica and the Southern Ocean. As an example of how much might be of interest to marine biologists, there are over 1,000 entries for fish and about 850 for fisheries; 5,700 for marine biology; 550 for krill; 2,300 for oceanography; and nearly 13,000 for sea ice.

Information on the Library's holdings is entered into the SPRILIB database, which is the electronic catalogue of the collection. Records in SPRILIB are at the analytical rather than main entry level, and this detail is an important strength of the Scott Polar Library. All entries have UDC index numbers and searchable key words, and 90% include an abstract intended to guide researchers to the relevant articles and books, which are available for immediate consultation within the library. Another useful feature of SPRILIB is that it includes records for items, which may be excluded from other databases. For example, though there is very little in the peer-reviewed scientific literature about illegal, unregulated and unreported fishing, the library has been seeking out newspaper and other reports and adding them to the database in order to build up an overall picture of the issue for the benefit of future research.

Information resources for Antarctica, the sub-Antarctic and the Southern Ocean

The full version of the Scott Polar Research Institute Library database, SPRILIB, can only be accessed within the Institute, as it operates in real time showing all stages of the information gathering process from the placing of an order right through to completed database entries. New records added to the SPRILIB database are published three times a year in Polar and Glaciological Abstracts, with abstracts and indexes. Large sub-sets of SPRILIB containing completed records are periodically reloaded onto the Institute's website where they can be searched online. SPRILIB Antarctica

(www.spri.cam.ac.uk/resources/sprilib/antarctica/) covers the Antarctic continent, the sub-Antarctic islands and the Southern Ocean with nearly 44,000 records published between 1602 and 2003; SPRILIB Russian North

(www.spri.cam.ac.uk/resources/sprilib/russian/) covers the Russian Arctic and is the biggest collection on the Russian Polar regions outside Russia and the Library of Congress; SPRILIB Ice and Snow

(www.spri.cam.ac.uk/resources/sprilib/icesnal) covers all aspects of glaciology worldwide, including sea ice and Antarctic glaciology.

Every six months the Scott Polar Research Institute Library sends an updated version of SPRILIB to the National Information Services Corporation (www.nisc.com) for inclusion in the Arctic and Antarctic Regions CD-ROM, the *NISCdisc*, which is a subscription service compiled from 12 separate sources. An on-line search service is also available through the NISC Biblioline. Although there is an inevitable time lag between an article being received by a library and the inclusion of a record in the Arctic and Antarctic Regions CD-ROM, this is an excellent and comprehensive resource for bipolar information.

The largest of the online information resources for Antarctica and the Southern Ocean is the Antarctic Bibliography, which is part of the Cold Regions Bibliography Project (www.coldregions.org) jointly funded by the U.S. National Science Foundation and the U.S. Army Corps of Engineers, Cold Regions Research and Engineering Laboratory (CRREL). This started at the Library of Congress, but since July 2000 has been compiled by the American Geological Institute (AGI). The Antarctic Bibliography concentrates on formal and government publications in all relevant disciplines, and contains approximately 76,000 records, growing at the rate of approximately 2,000 items per year, 600-800 of which are contributed by the Scott Polar Research Institute Library which sends records to AGI for inclusion in the Bibliography three times a year. The Antarctic Bibliography is updated every week, and each record includes a full abstract as well as key words. Some geographical areas covered by the Scott Polar Research Institute Library, notably the New Zealand sub-Antarctic Islands and the South Atlantic Ocean north of the Antarctic Convergence, are not included in the Antarctic Bibliography.

The bibliographic process

The advent of online searchable bibliographies has undoubtedly improved the information resources available to researchers in the Polar Regions. However, though monographs, conference proceedings and articles in peer-reviewed journals are reasonably accessible to the bibliographer, the grey literature of polar research is much less available for inclusion and is sometimes overlooked. In addition, the geographical area covered by Antarctica and the Southern Ocean and the many scientific disciplines involved can cause difficulty with the identification and acquisition of suitable records. As an example of this problem, an examination of 20 articles of polar interest published by one neurobiologist between 1998 and 2003 shows that only eight were published in core polar journals such as *Polar Biology* and *The International Journal of Circumpolar Health*. The remaining 12 papers appeared in nine non-polar journals ranging from *Protoplasma*, through *Applied Optics* and the *Journal of Neurocytology*, to the *Journal of Pineal Research*.

A further difficulty in the collection of material on Southern Ocean and Antarctic research is that Antarctica is not a country, and therefore has no National Deposit Library. Research is conducted under the auspices of the scientific institutions of many different nations, and the literature is published in many countries and in many languages as well as in the major international journals. Greater international cooperation in producing the main Antarctic bibliographies would help to reduce duplication of effort, and would also increase coverage, thus enabling researchers to rely on online information resources as giving a more accurate overall picture of the state of knowledge. At a time when libraries sometimes struggle to fund subscriptions to an increasingly expensive range of scientific journals, it is to be hoped that the international polar research community will continue to benefit from increasingly free access to information about information.

In conclusion, a visit to the web pages of the Scott Polar Research Institute (www.spri.cam.ac.uk) is a very worthwhile exercise, particularly for the access it provides to the information resources of SPRILIB and the Library of the Scott Polar Research Institute.

